From wb0eq at yahoo.com Mon Feb 1 14:16:56 2016
From: wb0eq at yahoo.com (John Sehring)
Date: Mon, 1 Feb 2016 19:16:56 +0000 (UTC)
Subject: [BoatAnchors] Estate sale
References: <206517819.3772617.1454354216408.JavaMail.yahoo.ref@mail.yahoo.com>
Message-ID: <206517819.3772617.1454354216408.JavaMail.yahoo@mail.yahoo.com>

http://hardgrass.ca/hamradio

Pix of estate sale stuff.

You need to dink around up & down with Parent directories to see all that is offered. Are both high res & thumbnail pix.

Halli & Central Electronics, HT-32, SX-115, 100V offered.

This url passed on to me by others. I have no personal knowledge of any of this.

--John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada

From 4cx250b at miamioh.edu Tue Feb 2 15:14:44 2016
From: 4cx250b at miamioh.edu (MU 4CX250B)
Date: Tue, 2 Feb 2016 14:14:44 -0600
Subject: [BoatAnchors] Free front panel for Hallicrafters FPM-200
Message-ID: <-4685100347060419781@unknownmsgid>

Hi all,
Lee VK4ANC sent me an email saying he had a front panel and plastic
dial face for an FPM-200, in case anyone needed one, free but for the
postage. If interested, please email him at jetstream at mymts.net.
73,
Jim W8ZR

Sent from my iPad

From whitebear1122 at comcast.net Wed Feb 3 21:06:07 2016
From: whitebear1122 at comcast.net (Whitebear1122)
Date: Wed, 3 Feb 2016 20:06:07 -0600
Subject: [BoatAnchors] For Sale DCS-500 Superhet Receiver
Message-ID: <178DEF0F-A1F3-4D2E-98CD-342E27B74047@comcast.net>

> Greetings. Last call for this great opportunity to acquire a parts unit and either restore or build your own DCS-500 Receiver. It comes with the rare Miller IF transformers and 3 complete coils sets for 80m, 40m, and 20m. The original builder emailed me after seeing the listing from last week. He built it in 1963 and sold it 15-20 years ago.

> Selling a home-brew DCS-500 receiver from the early to mid 60?s ARRL Handbook. The 1963 handbook says ?The receiver shown ? was designed to meet a need for a better than average ham receiver requiring a minimum of mechanical work and using standard and easily obtainable parts. It incorporates such features as a 100 Kc calibrator, provision for reception on all ham bands from 80 through 10 meters, adequate selectivity for todays crowded bands, and stability high enough for copying s.s.b signals. Dubbed the DCS-500 because of its 500 cycle selectivity in the sharpest i.f. position, it is a double conversion superhetrodyne receiver capable of giving good results on either a.m, c.w., s.s.b.
>
> The front panel is 0.125? thick steel, 19? wide by 12 1/4? tall. The chassis is 2? tall by 11? deep by 17? wide. Weight is approximately 23 pounds before packing. This receiver is built like a tank. It uses a National vernier dial plus all National knobs. The meter is Lafayette. There are no tubes with it. It looks like it might have been complete at one time but looks like parts are missing, a lot of unterminated wires, no longer wired switches, etc.. I would consider this a ?parts unit? and fabulous for having the difficult to impossible to find Miller IF transformers, variable capacitors, power transformers. It will come with three sets of coils for 75 meters, 40 meters, 20 meters!!!!! The 9 coil forms are the clear plastic forms typically used in the 1960?s. The coils are ?unobtainium? anywhere else.
>
> I have put photos of the DCS-500 up on photo bucket.com <http://bucket.com/> here: http://s1140.photobucket.com/user/651daisy/library/DCS500 Superhetrodyne Receiver <http://s1140.photobucket.com/user/651daisy/library/DCS500%20Superhetrodyne%20Receiver>The link has been difficult to get working. Worse case, copy and paste the link in your browser.
>

> I don?t know anything what-so-ever about this homemade receiver. It is sold as-is. Asking $100 or best offer.
>
> Local pick up is fine, Saint Paul MN. I don?t want to box this transmitter up but I will happily take it to a shipper of your choice and you can arrange to have them box and ship. I have used The UPS Store in downtown White Bear Lake MN to successfully box and ship a Hammarlund HQ-180, Hammarlund HQ-180AC, National NC-173, Hammarlund HQ-129, Heathkit Mohawk, Heathkit Marauder, 1936 Gross CP100 transmitter, National NC-101X, etc? They have done a good job for me.
> Address: 4707 US-61, White Bear Lake, MN 55110
> Phone:(651) 407-1280 <>
>
>
> 73, Scott WA9WFA

From ddillman at igc.org Thu Feb 4 20:39:10 2016

From: ddillman at igc.org (Richard Dillman)
Date: Thu, 4 Feb 2016 17:39:10 -0800 (GMT-08:00)
Subject: [BoatAnchors] Reminder - Mini Night of Nights This Saturday
Message-ID: <5704015.1454636350160.JavaMail.root@mswamui-cedar.atl.sa.earthlink.net>

Check the details in our just released Newsletter No. 54a at:

http://tinyurl.com/Newsletter-54a

RD

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Richard Dillman
Maritime Radio Historical Society
http://www.radiomarine.org
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From gumbear at pacbell.net Mon Feb 8 14:31:42 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Mon, 8 Feb 2016 11:31:42 -0800
Subject: [BoatAnchors] Pair of tower lighting chokes - FREE +postage
Message-ID: <71AA75BE18304A9EB24805C318ABB777@KB6NAX>

I haven?t had any luck giving these away at flea swaps but maybe a true boatanchor devotee can put them to good use. They are 14 ga cotton covered enameled magnet wire universal wound on ceramic forms. Great for building a power line RFI filter if your tower does not exceed FAA height limitations for unlit towers. E-mail me for details and photo.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From navy.radio at gmail.com Mon Feb 8 18:00:09 2016
From: navy.radio at gmail.com (Nick England)
Date: Mon, 8 Feb 2016 18:00:09 -0500
Subject: [BoatAnchors] Richmond VA hamfest photos
Message-ID: <CAB55hNejD5A7mYqXoembTLm=h5-aB8QVLAX_R1QEKhFQd_=KYg@mail.gmail.com>

Pretty good hamfest for boatanchors with what seemed like reasonable prices.

How often do you see a Drake 1-A? or a cosmic blue NC-140?
photos at
http://www.virhistory.com/ham/rich-16.htm

Also photos of some gear and boatanchorites from K4HX on the AM Fone page
http://amfone.net/Amforum/index.php?topic=41299.0

Cheers,
Nick England K4NYW
www.navy-radio.com

From k0myw at sbcglobal.net Mon Feb 8 18:31:16 2016
From: k0myw at sbcglobal.net (Michael OBrien)
Date: Mon, 8 Feb 2016 23:31:16 +0000 (UTC)
Subject: [BoatAnchors] Richmond VA hamfest photos
References: <2105138081.1073947.1454974276092.JavaMail.yahoo.ref@mail.yahoo.com>
Message-ID: <2105138081.1073947.1454974276092.JavaMail.yahoo@mail.yahoo.com>

And how many times do you see SIX Hallicrafters HT-17 transmitters at one hamfest, let alone on a single table?

That fellow had the market cornered!

Thanks for the great photos, as always, sir....

Mike, K0MYW

On Mon, 2/8/16, Nick England via BoatAnchors <boatanchors at theporch.com> wrote:

> Subject: [BoatAnchors] Richmond VA hamfest photos
> To: "Old Tube Radios" <boatanchors at theporch.com>
> Date: Monday, February 8, 2016, 5:00 PM
>
> Pretty good hamfest for boatanchors
> with what seemed like reasonable prices.
> How often do you see a Drake 1-A? or a cosmic blue NC-140?
> photos at
> http://www.virhistory.com/ham/rich-16.htm
>
> Also photos of some gear and boatanchorites from K4HX on the
> AM Fone page
> http://amfone.net/Amforum/index.php?topic=41299.0
>
> Cheers,
> Nick England K4NYW
> www.navy-radio.com

BoatAnchors mailing list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

From arc5 at ix.netcom.com Tue Feb 9 07:27:00 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Tue, 9 Feb 2016 06:27:00 -0600
Subject: [BoatAnchors] Richmond VA hamfest photos
In-Reply-To: <CAB55hNejD5A7mYqXoembTLm=h5-aB8QVLAX_R1QEKhFQd_=KYg@mail.gmail.com>
References: <CAB55hNejD5A7mYqXoembTLm=h5-aB8QVLAX_R1QEKhFQd_=KYg@mail.gmail.com>
Message-ID: <080CB76874EF43F2A4C9F0069B5F8AE6@DaddyPC>

Thank you, Nick, for once again going to this effort
for us. I'm a little jealous of you "Easties."
We usually don't see this much boatanchor gear
at our hamfests.
73 Dave S.

From arc5 at ix.netcom.com Wed Feb 10 07:30:36 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Wed, 10 Feb 2016 06:30:36 -0600
Subject: [BoatAnchors] TCS Receiver: No More CW "Ear-Popping"
Message-ID: <0210CAEDDDAD4DCFB595897494C6CE6B@DaddyPC>

In the quest to make the TCS into a good CW rig
without "ham-mering" it, there are several challenges.
One is the terrible "POP" in the headphones and speaker
when keying. The keying relay interrupts receiver screen
voltage and mutes receiver audio on transmit.
When keyed, there is a nasty transient on the audio.

I've never understood the grousing about the TCS
"keying relay clacking." It just ain't that loud when
the rig is buttoned-up. Oh, I know...
"Barbie and Ken's" $8000 plastic toy radios
don't make any noise at all, but ya know what?
I didn't pay $8000 for this sweet little rig.
And I can fix it when it breaks.
That said, the switching transient both in the phones
and in the remote speaker is brutal. It makes using
the rig on CW annoying on the speaker and impossible
on headphones. Attempts to suppress the transients
on the screen buss were not satisfactory.

The fix is simple, if one is using properly-matched
earphones and/or a matched speaker.
Zener diodes in parallel, one pointing in each direction,
across the headphone jack fixed the problem in the
phones. Used 1N4734A, 5.6 V 1W
I happened to have in "the Cave."
The TCS headphone jack is isolated from
the speaker audio buss by an 1800 Ohm resistor,
so this doesn't affect the speaker audio.
5 Volts of audio across matched headphones
is a big plenty unless one is stone deaf.

I can't say what Zeners to will work with improperly
matched headphones or "ham-mered" audio stages,
but every Zenering voltage from 1.4 to 500 Volts
is available for a few cents these day. Check with
Digikey. I've been very happy with them for years.

Another pair of the same type Zeners across the
speaker voice coil (not the audio buss in the
receiver, but at the speaker voice coil terminals)
cured it in the speaker audio. Clipping distortion
in the speaker audio is only a problem at very
high volume levels but if one finds it objectionable,
adjust the Zener clipping voltage upward until you
find a balance between clipping and keying
transient you can accept. The rig still sounds
sweet on AM to my ears because, with all the
volume I can stand, the diodes aren't clipping.
Working CW with headphones and/or speaker
is now very nice. Between the filter module in
the IF and this, I be a happy boy.

Caveat asinus calcitrando:
This fix will not work on rigs that have a sidetone
winding on the Modulation transformer which feeds
back to the receiver audio, like the SCR-274N,
ATA and AN/ARC-5. The cause is reflected
impedance. When you transmit on AM, the
modulation waveform is impressed both on the
transmitter plate/screen circuits and on the sidetone
winding. If there is clipping on the sidetone winding,
that will be reflected back into the modulation
winding (and stepped-up by it).
The result is clipped and hosed modulation.
Been here done this. Unless you disconnect the
sidetone winding (and I have on occasion),

solving keying transients on these rigs will
have to wait for more bench time.

GL OM ES 73 DE Dave AB5S

From jmac6235 at yahoo.com Wed Feb 10 10:29:46 2016
From: jmac6235 at yahoo.com (J.D. MacAulay, WQ8U)
Date: Wed, 10 Feb 2016 15:29:46 +0000 (UTC)
Subject: [BoatAnchors] Phone Classic Exchange "CX" this Sunday and next Tuesday
References: <1966836783.1688805.1455118186073.JavaMail.yahoo.ref@mail.yahoo.com>
Message-ID: <1966836783.1688805.1455118186073.JavaMail.yahoo@mail.yahoo.com>

Time to work and enjoy those wonderful old AM and early SSB rigs. ?Modern rigs are encouraged to join in the fun.
The PHONE CX will run from 1400 UTC February 14 to 0800 UTC February 15, 2016.(9 AM Eastern Time on Sunday to 3 AM Eastern Time Monday)?AND?>From 1400 UTC February 16 to 0800 UTC February 17, 2016(9 AM Eastern Time on Tuesday to 3 AM Eastern Time Wednesday)?Call: "CQ Classic Exchange"?Suggested Frequencies -- plus/minus QRMListen up and down 5 to 10 Kc for crystal controlled stations. . . . .BAND 160????????? 80????????????? 40????????????? 20?????????????? 15?????????????? 10?????????????? 6?????????????????? 2AM 1.890 mc. 3.860 mc. 7.270 mc. 14.280 mc. 21.400 mc. 29.000 mc. 50.300 mc. 144.300 mc.SSB 1.920 mc. 3.840 mc 7.250 mc. 14.260 mc. 21.380 mc 28.600 mc. 50.125 mc 144.200 mc.?See you all Sunday and Tuesday!?Full details at: www.classicexchange.org?Questions? email me! ?wq8u at arrl.net?73,??Mac WQ8U Hillsborough, NC

From arc5 at ix.netcom.com Wed Feb 10 11:31:50 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Wed, 10 Feb 2016 10:31:50 -0600
Subject: [BoatAnchors] TCS Receiver: No More CW "Ear-Popping"
Message-ID: <3907E75E8A344B57BF05B0289D6B0DEF@DaddyPC>

You know, one of the reasons I like these lists so much
is that so many people are smarter than me.

Of course you're right, but...
I took a moment to go out and look. Sure enough,
I had the scope on 1 Volt per division when I
thought I had it on 5.   Should have known better.

I did try the "cathode to cathode" type of limiter/
clipper. It doesn't work. Not a bit. I can't

explain, just report. Signal diodes parallel and anti-
connected die a sudden and tragic death.
Power diodes (1N4004) work but they introduce
more distortion on audio peaks at high volume levels
than the zeners do. Faster diodes? I dunno.
Again: I just report.
The zeners connected as I reported do work
and work well. I'm happy with them.

73 DE Dave AB5S

From gumbear at pacbell.net Wed Feb 10 21:57:11 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Wed, 10 Feb 2016 18:57:11 -0800
Subject: [BoatAnchors] TCS Receiver: No More CW "Ear-Popping"
Message-ID: <FEC6C89BE4AA4B41B574718965CDE104@KB6NAX>

> ....The zeners connected as I reported do work
and work well. I'm happy with them.

You have the right solution using zener diodes which are plenty fast for
audio limiting/clipping. The fact that the higher power 1N4700 series
zeners have a more gradual knee from the zener region to the avalanche mode
is what keeps audio distortion from being harsh to the ears. So you are
smarter than you think, Dave :-)

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From arc5 at ix.netcom.com Thu Feb 11 06:42:32 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Thu, 11 Feb 2016 05:42:32 -0600
Subject: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.
Message-ID: <9674DE2468034A00A8BC148A8214E355@DaddyPC>

Still fiddling, trying to get the TCS station ready
for Novice Rig Roundup.
I read everyone's kind info and schooling on

diode clipping and did some more tinkering.
I think this is what I was trying to do in the first place.
Now installed across the primary of the
matching transformer in the remote speaker box:

http://home.netcom.com/~arc5/clipper.jpg

The power diodes steer the current so the zeners work.
The clipping level should now be Vzn plus the power
diode Vfb drop, though I haven't scoped it yet.
Using the 5.6V zeners, the clipping
is just a little too much at high volume levels;
I'll pick up some 8 and 9 V zeners at the local surplus
house and tweek it some.
No more "popping" in the speaker during keying;
sounds good.
Left the ones across the headphones alone.
Wearing cans while keying is now almost as
comfortable as any modern rig I've used.

Better and better.

73 OM DE Dave AB5S

From gumbear at pacbell.net Thu Feb 11 12:43:57 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Thu, 11 Feb 2016 09:43:57 -0800
Subject: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.
In-Reply-To: <9674DE2468034A00A8BC148A8214E355@DaddyPC>
References: <9674DE2468034A00A8BC148A8214E355@DaddyPC>
Message-ID: <2920253A388146CABB7E4D0770B29D99@KB6NAX>

> ....The power diodes steer the current so the zeners work.
The clipping level should now be Vzn plus the power
diode Vfb drop, though I haven't scoped it yet. ....

David, you don't need the power diodes, just connect the zeners back to back. The zeners are normal diodes when conducting in forward direction. Zeners in series will soften the clipping knee. You could also try connecting an incandescent bulb in series to soften the zener knee instead. Or a combination.

Arden Allen
KB6NAX

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hard also in his dealings with men.
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his treatment of animals.
?Immanuel Kant

From dxguy at earthlink.net Thu Feb 11 19:18:29 2016
From: dxguy at earthlink.net (don davis)
Date: Thu, 11 Feb 2016 16:18:29 -0800
Subject: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.
In-Reply-To: <2920253A388146CABB7E4D0770B29D99@KB6NAX>
References: <9674DE2468034A00A8BC148A8214E355@DaddyPC>
 <2920253A388146CABB7E4D0770B29D99@KB6NAX>
Message-ID: <!&!
AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAJs0XjifHXBCslaIZ5U2tVsBAAAAAA
==@earthlink.net>

With no blocking diodes (power diodes), the zeners in parallel will look like normal pn diodes across the load. I think Dave is trying to clip at some higher voltage th .7 volts?

73 de don ad6pb

-----Original Message-----
From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of Arden Allen via BoatAnchors
Sent: Thursday, February 11, 2016 9:44 AM
To: David Stinson <arc5 at ix.netcom.com>; Old Tube Radios (new) <boatanchors at minime.theporch.com>
Subject: Re: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.

> ....The power diodes steer the current so the zeners work.
The clipping level should now be Vzn plus the power diode Vfb drop, though I haven't scoped it yet. ....

David, you don't need the power diodes, just connect the zeners back to back. The zeners are normal diodes when conducting in forward direction.
Zeners in series will soften the clipping knee. You could also try connecting an incandescent bulb in series to soften the zener knee instead.
Or a combination.

Arden Allen
KB6NAX

From arc5 at ix.netcom.com Thu Feb 11 20:27:38 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Thu, 11 Feb 2016 19:27:38 -0600
Subject: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.
In-Reply-To: <!&!AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAJs0XjifHXBCslaIZ5U2tVsBAAAAAA==@earthlink.net>
References: <9674DE2468034A00A8BC148A8214E355@DaddyPC>
 <2920253A388146CABB7E4D0770B29D99@KB6NAX>
 <!&!AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAJs0XjifHXBCslaIZ5U2tVsBAAAAAA==@earthlink.net>
Message-ID: <F0216EA9E7274E2A83FDB8BA515CB78E@DaddyPC>

----- Original Message -----
From: "don davis" <dxguy at earthlink.net>
Subject: RE: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.

With no blocking diodes (power diodes), the zeners in parallel will look like normal pn diodes across the load. I think Dave is trying to clip at some higher voltage th .7 volts?

That's correct, Don. Arden's idea is a good one- connecting the Zeners cathode-to-cathode *should* work just like the circuit with the steering power diodes. But it doesn't. Not a bit. Speaker still pops with keying. I have no idea why what I drew works and what Arden suggests doesn't.
Makes no sense to me. I just stuck with what worked.

73 Dave S.

From gumbear at pacbell.net Thu Feb 11 21:33:13 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Thu, 11 Feb 2016 18:33:13 -0800
Subject: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.
In-Reply-To: <!&!AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAJs0XjifHXBCslaIZ5U2tVsBAAAAAA==@earthlink.net>
References: <9674DE2468034A00A8BC148A8214E355@DaddyPC>
 <2920253A388146CABB7E4D0770B29D99@KB6NAX>
 <!&!

AAAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAJs0XjifHXBCslaIZ5U2tVsBAAAAAA
==@earthlink.net>
Message-ID: <C7706C0C0CB7441EB683AA30ED7F3E47@KB6NAX>

> ....With no blocking diodes (power diodes), the zeners in parallel
> will look like normal pn diodes across the load. I think Dave is trying
> to clip at some higher voltage th .7 volts? ....

The problem is not the physics of diodes it's the metaphor, "back to back,"
which in my meaning was two diodes connected in **series,** either the
cathodes connected together or the anodes connected together. Connecting
the diodes in **parallel** would invoke "belly to belly." Oh well, what's
in a name ....?

Arden Allen
KB6NAX

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hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From gumbear at pacbell.net Thu Feb 11 21:39:00 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Thu, 11 Feb 2016 18:39:00 -0800
Subject: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.
In-Reply-To: <F0216EA9E7274E2A83FDB8BA515CB78E@DaddyPC>
References: <9674DE2468034A00A8BC148A8214E355@DaddyPC>
 <2920253A388146CABB7E4D0770B29D99@KB6NAX>
 <!&!
AAAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAJs0XjifHXBCslaIZ5U2tVsBAAAAAA
==@earthlink.net>
 <F0216EA9E7274E2A83FDB8BA515CB78E@DaddyPC>
Message-ID: <D26AF884C4D443EF845A41652163E087@KB6NAX>

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connecting the Zeners cathode-to-cathode *should*
work just like the circuit with the steering power
diodes. But it doesn't. Not a bit. Speaker still
pops with keying. I have no idea why what I drew
works and what Arden suggests doesn't.
Makes no sense to me. I just stuck with what worked.

That effect says to me the zener diodes you're using have a much longer
forward conduction delay. After all they were designed to operate in the

forward mode. I wonder if a spec sheet could tell us. I'll try to find
out, not that it's necessary for Dave's functioning clipper.

Back to the Demo destruction derby...

Arden Allen
KB6NAX

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his treatment of animals.
?Immanuel Kant

From gumbear at pacbell.net Thu Feb 11 21:41:55 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Thu, 11 Feb 2016 18:41:55 -0800
Subject: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.
In-Reply-To: <F0216EA9E7274E2A83FDB8BA515CB78E@DaddyPC>
References: <9674DE2468034A00A8BC148A8214E355@DaddyPC>
 <2920253A388146CABB7E4D0770B29D99@KB6NAX>
 <!&!
AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAJs0XjifHXBCslaIZ5U2tVsBAAAAAA
==@earthlink.net>
 <F0216EA9E7274E2A83FDB8BA515CB78E@DaddyPC>
Message-ID: <29A3067ACE9C45A89E4D1373251A8B4D@KB6NAX>

> ......That's correct, Don. Arden's idea is a good one-
connecting the Zeners cathode-to-cathode *should*
work just like the circuit with the steering power
diodes. But it doesn't. Not a bit. Speaker still
pops with keying. I have no idea why what I drew
works and what Arden suggests doesn't.
Makes no sense to me. I just stuck with what worked.

CORRECTION: That effect says to me the zener diodes you're using have a
much longer
forward conduction delay. After all they were NOT designed to operate in
the
forward mode. I wonder if a spec sheet could tell us. I'll try to find
out, not that it's necessary for Dave's functioning clipper.

Back to the Demo destruction derby...

Arden Allen
KB6NAX

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BoatAnchors mailing list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

From dxguy at earthlink.net Fri Feb 12 05:17:25 2016
From: dxguy at earthlink.net (don davis)
Date: Fri, 12 Feb 2016 02:17:25 -0800
Subject: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.
In-Reply-To: <29A3067ACE9C45A89E4D1373251A8B4D@KB6NAX>
References: <9674DE2468034A00A8BC148A8214E355@DaddyPC>
 <2920253A388146CABB7E4D0770B29D99@KB6NAX>
 <!&!
AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAJs0XjifHXBCslaIZ5U2tVsBAAAAAA
==@earthlink.net>
 <F0216EA9E7274E2A83FDB8BA515CB78E@DaddyPC>
 <29A3067ACE9C45A89E4D1373251A8B4D@KB6NAX>
Message-ID: <!&!
AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAKZzdIHNV2lAtpQdeDF4vlcBAAAAAA
==@earthlink.net>

OK, got it now. Yes, in theory all of these "should" work but clippers are more difficult than they look. Most of these are made to work empirically. What Arden refers to is reverse recovery time (trr) which sets a limit for the time to suck all of the energy out of the junction so it is ready to switch again. As an example 1n5811 (high speed switching device) has trr = 30nsec. May or may not be relevant since this is rated and measured at high power, but yours' is at low level signal. I looked at the 1n4004 and it doesn't spec this. For space use we used to spec the amount of energy that had to be dumped as well as trr. When we modeled Zeners in SPICE we would always put a 10 Meg resistor across to get them to "work right" or they would frequently fail to initialize for initial values. Maybe try this in actual circuit?

Either config should work (series back to back or parallel with blocking diodes) but with the zeners in series with a high impedance into a high impedance circuit I can see why it might not work.

73 de don ad6pb

-----Original Message-----
From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of Arden Allen via BoatAnchors
Sent: Thursday, February 11, 2016 6:42 PM
To: David Stinson <arc5 at ix.netcom.com>; 'Old Tube Radios (new)' <boatanchors at minime.theporch.com>
Cc: Arc5 at mailman.qth.net
Subject: Re: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.

> ......That's correct, Don. Arden's idea is a good one-
connecting the Zeners cathode-to-cathode *should* work just like the circuit with the steering power diodes. But it doesn't. Not a bit. Speaker still pops with keying. I have no idea why what I drew works and what Arden suggests doesn't. Makes no sense to me. I just stuck with what worked.

CORRECTION: That effect says to me the zener diodes you're using have a much longer forward conduction delay. After all they were NOT designed to operate in the forward mode. I wonder if a spec sheet could tell us. I'll try to find out, not that it's necessary for Dave's functioning clipper.

Back to the Demo destruction derby...

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

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BoatAnchors mailing list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

____
BoatAnchors mailing list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

From arc5 at ix.netcom.com Fri Feb 12 07:44:59 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Fri, 12 Feb 2016 06:44:59 -0600
Subject: [BoatAnchors] TCS RX: Collins, You Continue to Impress.
Message-ID: <65BAFDB0FFA04269B1993A4909B23A55@DaddyPC>

In the quest to get the TCS station ready for Novice Rig Roundup, I'm working toward a non-destructive selectivity solution similar to the Collins Mechanical Filter Adaptor I wrote about previously (thank you, thank you, Clare!). That device works very well but is too tall to allow the receiver to be put back into the case. Moreover, it was designed for the HRO or SuperPro and provides far too much gain for this application. I don't want to "ham-mer" it to fit. Besides; I have a nice HRO waiting.

While considering a plug-in adaptor to replace the 2nd IF 12SK7, just out of curiousity, I removed the tube and jumpered a .1 cap from Grid to Plate pins, directly connecting the 2nd IF input and output IF transformers (pins 4 and 8). To my surprise, I had a nice AM QSO with the local guys with plenty of speaker level. On 40 CW, there is plenty of audio in my headphones for contacts. Even DX stations were clearly audible. This is going to make the task easier.
How many receivers can you name that will comfortably QSO with one of its tubes removed?
Mr. Collins, you continue to impress.

73 DE Dave AB5S

From gumbear at pacbell.net Fri Feb 12 08:45:49 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Fri, 12 Feb 2016 05:45:49 -0800
Subject: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.
In-Reply-To: <!&!AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAKZzdIHNV2lAtpQdeDF4vlcBAAAAAA==@earthlink.net>
References: <9674DE2468034A00A8BC148A8214E355@DaddyPC>
<2920253A388146CABB7E4D0770B29D99@KB6NAX>
<!&!AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAJs0XjifHXBCslaIZ5U2tVsBAAAAAA==@earthlink.net>
<F0216EA9E7274E2A83FDB8BA515CB78E@DaddyPC>
<29A3067ACE9C45A89E4D1373251A8B4D@KB6NAX>
<!&!AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAKZzdIHNV2lAtpQdeDF4vlcBAAAAAA==@earthlink.net>
Message-ID: <B4CDAFF4C2254BAB96AD437C68C98142@KB6NAX>

Actually, Don, I was referring to **forward recovery time.** But it all seems ridiculous because zeners aren't that slow and recovery times should be no more than a few microseconds. So perhaps the back to back configuration needs resistors in parallel with each zener diode. Science?

Arden Allen
KB6NAX

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hard also in his dealings with men.
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?Immanuel Kant

-----Original Message-----
From: don davis
Sent: Friday, February 12, 2016 2:17 AM
To: 'Arden Allen' ; 'David Stinson' ; 'Old Tube Radios (new)'
Cc: Arc5 at mailman.qth.net
Subject: RE: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.

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Sent: Thursday, February 11, 2016 6:42 PM
To: David Stinson <arc5 at ix.netcom.com>; 'Old Tube Radios (new)' <boatanchors at minime.theporch.com>
Cc: Arc5 at mailman.qth.net
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BoatAnchors mailing list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

From john.shriver at gmail.com Fri Feb 12 09:21:38 2016
From: john.shriver at gmail.com (John Shriver)
Date: Fri, 12 Feb 2016 09:21:38 -0500
Subject: [BoatAnchors] TCS: Better Speaker "Ear Popping" Cure.
In-Reply-To: <B4CDAFF4C2254BAB96AD437C68C98142@KB6NAX>
References: <9674DE2468034A00A8BC148A8214E355@DaddyPC>
<2920253A388146CABB7E4D0770B29D99@KB6NAX>
<!&!AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAJs0XjifHXBCslaIZ5U2tVsBAAAAAA==@earthlink.net>
<F0216EA9E7274E2A83FDB8BA515CB78E@DaddyPC>
<29A3067ACE9C45A89E4D1373251A8B4D@KB6NAX>
<!&!AAAAAAAAAAAYAAAAAAAAAO3NLm+r0kBFo+eoEOIVyavCgAAAEAAAAKZzdIHNV2lAtpQdeDF4vlcBAAAAAA==@earthlink.net>

<B4CDAFF4C2254BAB96AD437C68C98142@KB6NAX>
Message-ID: <CAEv8c7H5v-ACrAV8m2QxYduWQw0xjzZ+RmyTdT-ORbdPaiNgFg@mail.gmail.com>

The 1N400n series are noted for being SLOW diodes. One data sheet calls out an operating frequency of 1000 Hz. Just fine for rectifying the AC line, but you just don't want to use them even at normal audio frequencies.

I presume it's the reverse recovery time of 30 microseconds, along with the junction capacitance of 15 pF.

They were the first cheap practical epoxy-cased rectifiers, and were a great innovation when introduced. (I have one from Motorola in promotional packaging.) But they are rather low-spec.

From arc5 at ix.netcom.com Fri Feb 12 10:25:01 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Fri, 12 Feb 2016 09:25:01 -0600
Subject: [BoatAnchors] TCS Transmitter: OK Smart People; Why?
Message-ID: <D4A8D4B255D641CF9DC157F2A8F39098@DaddyPC>

I think I know why an outstanding transmitter like the TCS, with both MO and Xtal oscillators, never got real traction as a Novice rig (other than the high price at the time).

Those familiar with crystal-controlled transmitters of the 40s and 50s will recognized this pentode oscillator circuit:

http://home.netcom.com/~arc5/TCS/TCSXtal.jpg

The values in black are nominally the ones found in the many flavors of this circuit. The values in red are those found in the TCS transmitter. The TCS values bias harder and reduce the screen voltage considerably. As a result, crystals like FT-243, CR-1, HC-6 and even large-blank FT-241 will not reliably function or fail to oscillate altogether. However- I have a couple of pre-war, Collins-made large-blank transmit crystals:

http://home.netcom.com/~arc5/TCS/TCSTXXtalCollinsPreWar.jpg

With these installed, the oscillator is perky as a pug. With parallel resistors installed to bring the cathode down to 500 Ohms and the Screen dropper down to 22K, all properly active crystals I've tried work well and give good drive.

The engineers knew what they were doing and what the result would be. Why did Collins do this? Were they trying to ensure only crystals bought from them would work? Is this why it's easy to find TCS Receiver crystals, but Transmitter crystals are scarce? Curious. Thoughts?

GL OM ES 73 DE Dave AB5S

From smithab11 at comcast.net Fri Feb 12 11:01:04 2016
From: smithab11 at comcast.net (B. Smith)
Date: Fri, 12 Feb 2016 11:01:04 -0500
Subject: [BoatAnchors] TCS Transmitter: OK Smart People; Why?
In-Reply-To: <D4A8D4B255D641CF9DC157F2A8F39098@DaddyPC>
References: <D4A8D4B255D641CF9DC157F2A8F39098@DaddyPC>
Message-ID: <56BE01C0.7080201@comcast.net>

I would be very cautious when changing any oscillator circuit. I would always check for crystal current before and after a circuit modification. I consider 20-30 ma crystal current in the "danger" zone and would be cautious with the higher currents when using a crystal that does not have a large quartz surface area

I use a small miniature bulb in a modified crystal holder to check crystal current- if it is a 30 ma bulb and it grows full brilliance - watch out.   :-)

Photos and a little info on my TCS pages. Scroll down to see the crystal current jig but don't laugh at my construction.
http://k4che.com/TCS%20equipment/Crystals%20and%20Adapters/Crystals%20and%20Adapters.htm

k4che

On 2/12/2016 10:25 AM, David Stinson via BoatAnchors wrote:

> I think I know why an outstanding transmitter like the TCS, with both MO and Xtal oscillators, never got real traction as a Novice rig (other than the high price at the time).
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> Those familiar with crystal-controlled transmitters of the 40s and 50s will recognized this pentode oscillator circuit:
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>
> GL OM ES 73 DE Dave AB5S
>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

From navy.radio at gmail.com Fri Feb 12 13:25:48 2016
From: navy.radio at gmail.com (Nick England)
Date: Fri, 12 Feb 2016 13:25:48 -0500
Subject: [BoatAnchors] very long shot - vintage Baudot-to-Morse Code
     Converter
Message-ID: <CAB55hNf3BZaQgOJ+6a=8b5+dei7fSXU36HCvrVAK437rVZuYPQ@mail.gmail.com>

Thanks to Larry K7KSW I have recently acquired a Frederick 660A
Baudot-to-Morse Code Converter. Now I desperately need a manual or to
contact someone who also has a 660A.

Mine is missing 2 PC boards, which I am can replicate if I can find a
schematic or boards to copy. If you ever come across any 4.5"x14" boards
full of 2N404 transistors and labeled N0133 or N0145, please grab 'em for
me!

Photos of the unit and other PC boards is at
http://www.navy-radio.com/morse.htm#660a

I have all the code converter boards which provide a diode logic conversion
from baudot to morse. It also looks like I have the boards for input and
output relay control - I'm guessing the two missing boards provide some
shift register logic, handle LTRS-FIGS shift, convert CR/LF to BT, etc.

Cheers,
Nick K4NYW
www.navy-radio.com

From gumbear at pacbell.net Fri Feb 12 14:10:50 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Fri, 12 Feb 2016 11:10:50 -0800
Subject: [BoatAnchors] TCS RX: Collins, You Continue to Impress.
In-Reply-To: <65BAFDB0FFA04269B1993A4909B23A55@DaddyPC>
References: <65BAFDB0FFA04269B1993A4909B23A55@DaddyPC>
Message-ID: <C66E3A55B3334D9D9F61595C70322195@ArdenPC>

> ....I'm working toward a non-destructive selectivity solution
> similar
to the Collins Mechanical Filter Adaptor I wrote about previously
(thank you, thank you, Clare!).

At the risk of committing heresy it seems to me, who has no skill in the
specialty, That a compact selectivity enhancer, with programmable
bandwidths, could be implemented in a DSP chip and with impedance matching
input
and gain matching output drop into the 6SK7, 6BA6, or whatever IF tube
socket. I'll get right on it ...... in my next life...

Arden Allen, KB6NAX

Heaven goes by favor. If it went by merit,
you would stay out and your dog would go in.
_Mark Twain

From vilgotch at bigpond.net.au Fri Feb 12 19:02:51 2016
From: vilgotch at bigpond.net.au (Morris Odell)
Date: Sat, 13 Feb 2016 11:02:51 +1100
Subject: [BoatAnchors] TCS RX: Collins, You Continue to Impress.
Message-ID: <000701d165f1$e1ca72c0$a55f5840$@bigpond.net.au>

Hi all,

Dave wrote:

> How many receivers can you name that will comfortably QSO with one of its
tubes removed?

A few years ago I was restoring a Marconi CR150/3 - a rather plain looking
1940s British boatanchor perhaps not too familiar to those in the USA. I was

listening to the BBC on 9750 Kc quite easily when I discovered that one of the two EF50 RF amplifier tubes was a dud. Replacing the tube improved the radio from "pretty good" to "spectacular"! This is one hot receiver even though it's design is quirky to say the least. Having the stators of the RF tuning gang connected directly to the amplifier plates at +250V is only one of the surprises this radio holds.

73 de Morris VK3DOC

From nbroline at austin.rr.com Sat Feb 13 12:49:59 2016
From: nbroline at austin.rr.com (Nick Broline)
Date: Sat, 13 Feb 2016 11:49:59 -0600
Subject: [BoatAnchors] No more Ear-Popping Thought
In-Reply-To: <mailman.21.1455191010.250.boatanchors@theporch.com>
References: <mailman.21.1455191010.250.boatanchors@theporch.com>
Message-ID: <298EDA45EDCC4522813ED3BFA744E8AE@newdualath>

It is true that the back-to-back Zeners will clamp the peak voltage across an audio source provided there is a reasonably high source impedance behind the voltage, such as a headphone circuit. However, there is a pitfall to be avoided when Zeners are selected. A family of "temperature compensated precision reference" Zeners have been manufactured almost forever using a good Zener in series with a standard small-signal Si diode. (This is a very crude explanation and they are not really physically made this way.) The anode of the Zener (the - end) is internally tied to the anode of the Si diode. The Zener and the Si diode have reverse temperature coefficients. By adjusting the current through the diode pair a current value can be found where the temp coefficient of the pair is zero. The reference voltage will vary because of the current through them, but the temp coefficient will be zero, which is the intent of the reference.

When precision reference diodes are placed back-to-back or front-to-front no current will flow and no clipping will result. However, when standard Zeners are used they will work great. Don't worry about recovery time unless your headphone audio bandwidth is greater than 5- or -10 Mc.(!!!)

Also, special Zeners have been made to provide conduction in one polarity only and provide an open circuit in the reverse direction, but are uncommon.

Nick Broline
W5FUA
512 327 7425

We shall not cease from exploration
And at the end of exploring
Will be to arrive where we started

And know the place for the first time.
T.S. Eliot--"Little Gidding"

From arc5 at ix.netcom.com Sat Feb 13 15:27:27 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Sat, 13 Feb 2016 14:27:27 -0600
Subject: [BoatAnchors] TCS Receiver: "More than one way to skin..."
Message-ID: <3BE1C554CB714D2393D84B6E949E64A8@DaddyPC>

Tinkered around some more and found a way to "down-size" and simplify the Collins 353-series Mechanical Filter adaptor to fit inside the TCS receiver. Yes; I could make some solid-state fancy thing. But if I did that, I'd feel soiled. No way. So it's tubes or nothing.

First- there's so much gain "head room" here that triodes do the job just fine. I used two 6026 sub-mini triodes. Why, when a single 12AU7 or similar would do the job? Just because I enjoy tinkering with these tiny tubes, they don't need sockets and I have them laying around. Nothing more complex than that.
But then, a 12AU7 might not provide enough isolation between input and output. I dunno; try it and see.

There was a "hitch" (isn't there always): The TCS B+ is 220 Volts, and sub-minis want max 150. Boogering under the chassis was again forbidden; the adaptor must plug in place of the tube with no other changes. A 1N5378, 100 Volt Zener with a .047 across it to bypass it for RF connected as shown in the diagram fixed the issue. 220 Volts on one side, 115 on the other. Mr. Mini Tube is happy.

The input tube runs with very low plate voltage- about 19 Volts. This is because it is powered from the Screen buss and must do so to isolated it from the Plate buss, which powers the other tube. V1 draws 4 mils and the TCS screen dropping resistor is 47K, so that only leaves about 19 Volts. Fortunately, the stage works fine at that level. One could adjust the screen resistor, but I opted not to start diddling under the chassis when it clearly wasn't needed. If you adapt this to other rigs, you many need to adjust screen resistor values at the tube socket.

I'm going to build this up with two, switchable filters- one for .8 KC CW, one for 6 KC Phone.
Note: For this adaptor to work, one must align the radio properly. The old "ham" trick of turning-on the BFO and

diddling/twiddling everything to maximum noise will not work.
The BFO needs to be 455.0 KC when the knob is pointing to "0" and the IFs need to be aligned to 455 KC per the manual. If you go to the trouble to build this and do not have a properly-aligned set, you shall be unhappy.

Here is the circuit. Simple and it works. Many improvements possible.
http://home.netcom.com/~arc5/TCS/TCSFilterAdaptor1.jpg

This, plus the "ear saver" clipper, makes the radio excellent on CW.
Still tunes fast, but, as my Daddy would say: "Well for Heaven's sake, son! What do you want? Egg in your beer?" (I don't know why egg in a beer would be a good thing, but I loved my Daddy's smile when he said it). So tune slow. It ain't hard.

Looking forward to adapting this for an ARC-5 receiver.

73 DE Dave AB5S

From arc5 at ix.netcom.com Sat Feb 13 20:57:37 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Sat, 13 Feb 2016 19:57:37 -0600
Subject: [BoatAnchors] TCS Receiver: "More than one way to skin..."
In-Reply-To: <CAETC+7Mu-xH6frJqJ54R5_amh_3Uz=ixeoYFB2ANmqzcWJK02Q@mail.gmail.com>
References: <3BE1C554CB714D2393D84B6E949E64A8@DaddyPC>
 <CAETC+7Mu-xH6frJqJ54R5_amh_3Uz=ixeoYFB2ANmqzcWJK02Q@mail.gmail.com>
Message-ID: <F326E5D66A924904A39FBD0668E2786B@DaddyPC>

Neil:
I read your letter while out with the wife and got to thinking about it. When the B+ rises above the breakdown on the zener, the diode goes into conduction. So any RF rides on the conduction, just like diode switching of RF in modern, plastic toy radios. The cap is not needed. I did scope it as-is and there was no oscillation, but your point is well taken. Now moot, since it's not required and I removed it from the circuit.
The thing one learns with a hot soldering iron. ;-)
73 Dave AB5S

----- Original Message -----
From: "AKLDGUY ." <neilb0627 at gmail.com>
Subject: Re: [Milsurplus] TCS Receiver: "More than one way to skin..."

>I see two problems with the 0.047 capacitor across the zener.
> The first is that at the instant the B+ is turned on, V2 is
> subjected
> to the full 220V B+,
> since the capacitor is essentially a dead short until charging
> gets underway.
> That high voltage may have a detrimental effect on V2's life.
>
> The second is that a capacitor placed across a zener or voltage
> regulator tube may
> create a relaxation oscillator if the timing constants happen
> to favour it.

From wwatson5 at sbcglobal.net Sun Feb 14 18:30:47 2016
From: wwatson5 at sbcglobal.net (William Watson)
Date: Sun, 14 Feb 2016 23:30:47 +0000 (UTC)
Subject: [BoatAnchors] Twisted prog can type electrolytic rebuilding
References: <847421266.3238320.1455492647614.JavaMail.yahoo.ref@mail.yahoo.com>
Message-ID: <847421266.3238320.1455492647614.JavaMail.yahoo@mail.yahoo.com>

 Does any know of a place that does rebuilding?of can type electrolytic capacitors?
Or, does anyone have quantity 3 nice looking 1" diameter twisted prong 3-prong? cans that I could restuff?
Thanks
Joe WatsonW5WBR

From k1lky68 at gmail.com Sun Feb 14 18:46:07 2016
From: k1lky68 at gmail.com (Roy Morgan)
Date: Sun, 14 Feb 2016 18:46:07 -0500
Subject: [BoatAnchors] Twisted prog can type electrolytic rebuilding
In-Reply-To: <847421266.3238320.1455492647614.JavaMail.yahoo@mail.yahoo.com>
References: <847421266.3238320.1455492647614.JavaMail.yahoo.ref@mail.yahoo.com>
 <847421266.3238320.1455492647614.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <FC86C605-1B97-496D-B8B1-9071E7D570E0@gmail.com>

On Feb 14, 2016, at 6:30 PM, William Watson via BoatAnchors <boatanchors at theporch.com> wrote:

> Does any know of a place that does rebuilding of can type electrolytic capacitors?

Hayseedhamfest:

http://hayseedhamfest.com/

"Hayseed Hamfest is your #1 supplier of can-type and tubular electrolytic capacitors. These are available in various mounting styles including the classic twist-tab, as well as clamp, octal plug-in, and stud mount.

Our re-cap kits, tailored to specific models of equipment, provide a way of obtaining all the capacitors needed for a typical re-cap project in one convenient package. They include one or more of our can or tubular capacitors along with individual replacements for the other electrolytic and/or paper capacitors needed.

In addition to our stock capacitors and re-cap kits, we also supply custom-made units on an order-out basis with no price penalty and no minimum quantity.?

Roy

Roy Morgan
k1lky68 at gmail.com
K1LKY Since 1958

From arc5 at ix.netcom.com Sun Feb 14 22:57:09 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Sun, 14 Feb 2016 21:57:09 -0600
Subject: [BoatAnchors] TCS Receiver: Homebrewed Mech Filter Adaptor.
Message-ID: <36A44D1694F148EBAAEB1212F5EA4B5A@DaddyPC>

Well I dug around in "the Cave" and found an old Collins mechanical filter I've had in the piles from probably 25 years. I *thought* it was 455 KC 100 cycle (too narrow for this application) but it turned-out to be a 2.1 KC LSB filter. Just what I needed. So I perf-boarded one of the adaptors small enough to allow me to put the receiver cover back on. Again, 6026 subminiture triodes and here's the diagram:

http://home.netcom.com/~arc5/TCS/TCSFilterAdaptor1.jpg

Here's how my cobbled-together effort looks:

https://goo.gl/photos/hxCVFbPsbZEMZJDQ6

I wire-wrapped the tubes in; how cool is that?

With the BFO zeroed, nice LSB audio.

AM sounds OK, like you'd expect listening with a Drake TR-4 or
so. With the BFO 1 KC low, Nice CW QSOs. Only trouble is on
very strong signals, I get some ringing feedback, probably
because the tubes need to be shielded from each other. I'll fix
that later. Buttoned it up and I'm ready for Novice Rig Roundup!
When a project goes this well, I like to play this tune:
http://home.netcom.com/~arc5/TCS/happyboy.mp3

73 DE Dave AB5S

From arc5 at ix.netcom.com Mon Feb 15 07:36:03 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Mon, 15 Feb 2016 06:36:03 -0600
Subject: [BoatAnchors] Just a Little.....
Message-ID: <5990021EEEE04FD5BF7F5F32BCBC7B67@DaddyPC>

Soon, the Collins TCS-12 receiver will get a turn on the bench.
Do you think this 100K resistor has drifted just a little bit, or
should I carry it in my pocket when buying a lottery ticket?
https://goo.gl/photos/dW2NVKNPcj91UtWD6

From arc5 at ix.netcom.com Mon Feb 15 07:57:21 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Mon, 15 Feb 2016 06:57:21 -0600
Subject: [BoatAnchors] TCS Filter Adaptor- Corrected Schematic
In-Reply-To: <5990021EEEE04FD5BF7F5F32BCBC7B67@DaddyPC>
References: <5990021EEEE04FD5BF7F5F32BCBC7B67@DaddyPC>
Message-ID: <C88F8D94F966440BA554AB2E5A3C70B7@DaddyPC>

I've corrected and updated the schematic
 for the TCS Receiver Filter Adaptor.
Not that I believe anyone will build one,
but best to get it right.
73 Dave S.

http://home.netcom.com/~arc5/TCS/TCSFilterAdaptor1.jpg

From arc5 at ix.netcom.com Mon Feb 15 08:56:00 2016

From: arc5 at ix.netcom.com (David Stinson)
Date: Mon, 15 Feb 2016 07:56:00 -0600
Subject: [BoatAnchors] [3890_AM] TCS Filter Adaptor- Corrected Schematic
In-Reply-To: <C88F8D94F966440BA554AB2E5A3C70B7@DaddyPC>
References: <5990021EEEE04FD5BF7F5F32BCBC7B67@DaddyPC>
 <C88F8D94F966440BA554AB2E5A3C70B7@DaddyPC>
Message-ID: <801570C237DB4917977D439F2134386B@DaddyPC>

To my happy surprise, several of our great "smart people" have written me and offered good suggestions on improving the filter adaptor. I will give them a try and report back. I especially like those that get the DC off the filter input. Will probably need to change the 22K plate resistor. 73 Dave S.

From arc5 at ix.netcom.com Mon Feb 15 09:14:52 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Mon, 15 Feb 2016 08:14:52 -0600
Subject: [BoatAnchors] Huge Gear Pile Surfaces in Tucson
Message-ID: <F0B47E4CB95F4D2184EDDE15E4C3C854@DaddyPC>

I do not know the man and am not the contact for this gear.

But one of our members speaks well of him.

A gentleman in Tucson has recently acquired a huge pile of vintage gear, both commerical ham and mil-radio, which he will be offering soon (and may God have mercy on his soul!). You can see representative photos at:

https://goo.gl/photos/TM8u8NDvHfkAMXLD8

His contact information is:
Frank Zavada KD7HVL
FraZava7 at aol.com

A note from him:
Go ahead and release the pictures, however if you can please advise everyone I am having a portable building delivered this Tuesday and moving the shop into this new building. As a result this is going to slow down my response times to email and everything while I am making this move. I am normally very responsive to requests so I must apologize ahead of time.
Frank

From arc5 at ix.netcom.com Mon Feb 15 10:39:13 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Mon, 15 Feb 2016 09:39:13 -0600
Subject: [BoatAnchors] Collins Mechanical Filters- Reasonable Prices
Message-ID: <B763257FC96849AFB14DABFBE067A06D@DaddyPC>

Someone in Canada is offering Collins Mechnical Filters for reasonable prices.

http://www.ebay.com/itm/222024484136

http://www.ebay.com/itm/222024480764

http://www.ebay.com/itm/322008903429

From k1lky68 at gmail.com Mon Feb 15 11:16:03 2016
From: k1lky68 at gmail.com (Roy Morgan)
Date: Mon, 15 Feb 2016 11:16:03 -0500
Subject: [BoatAnchors] [3890_AM] TCS Filter Adaptor- Corrected Schematic
In-Reply-To: <801570C237DB4917977D439F2134386B@DaddyPC>
References: <5990021EEEE04FD5BF7F5F32BCBC7B67@DaddyPC>
 <C88F8D94F966440BA554AB2E5A3C70B7@DaddyPC>
 <801570C237DB4917977D439F2134386B@DaddyPC>
Message-ID: <C733D149-440C-4D3B-9639-782E0A577D7E@gmail.com>

On Feb 15, 2016, at 8:56 AM, David Stinson via BoatAnchors <boatanchors at theporch.com> wrote:

> To my happy surprise, several of our great "smart people" have written me and offered good suggestions on improving the filter adaptor.

Just a thought:

Thwart Murphy! **

The filament connections could go from pins 2 and 7 directly to the filament pins on the tube socket (or sub mini connections) without either being grounded in the adapter. Then whichever pin is actually grounded in the radio it won?t matter. It could be either one, according to how they built the radio, or even part of a series filament connection as in 12 volt tubes run on 24 volt supply such as in the ARC-5 receivers.

I did look at the Collins 353A filter adapter schematic to see what they did. It?s odd. Pin 1 is grounded. The filament of one of the two tubes goes from pin 7 to ground, the other filament is connected from pin 2 to 7. It seems that if there is 12 volts at pin 2 and no connection at pin 7, the two tubes will light in series and if there is 6 volts at 7 and 2 is grounded they will both light on 6 volts.

I did not dope out what happens in the ARC-5 receiver with original filament connections. I suspect possible disaster if either pin 7 or pin 2 has 24 volts on it.

Further investigation reveals this about the SP-400 and HRO-60 receivers that the 353A is meant to be use in:

In both the SP-400 and the HRO-60, all octal tubes have 6.3 volts on Pin 7 (except for the limiter tube that?s ?starved? for filament voltage intentionally). The SP-400 schematic I have does not show pin numbers on the drawing but the SP-600 schematic does. In neither schematic is pin 1 shown, but the SP-400 manual indicates ?shell? for that pin., and we can assume it is grounded.

The possible trouble is that if one or the other is grounded in the adapter, and that one is actually the filament supply in the radio you have at hand, you have a short to ground on the filament line.

Keep pin 1 grounded - that seems to be shield or shell in most of the octal tubes I?m familiar with.

Roy

**If something can possibly go wrong, it will.

Roy Morgan
k1lky68 at gmail.com
K1LKY Since 1958

From gumbear at pacbell.net Mon Feb 15 21:22:36 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Mon, 15 Feb 2016 18:22:36 -0800
Subject: [BoatAnchors] TCS Filter Adaptor- Corrected Schematic
In-Reply-To: <C88F8D94F966440BA554AB2E5A3C70B7@DaddyPC>
References: <5990021EEEE04FD5BF7F5F32BCBC7B67@DaddyPC>
 <C88F8D94F966440BA554AB2E5A3C70B7@DaddyPC>
Message-ID: <B4342F265BB54E65AB08A14D1B6743FB@KB6NAX>

> ......I've corrected and updated the schematic
for the TCS Receiver Filter Adaptor.
Not that I believe anyone will build one,
but best to get it right.

Me thinks you made an incorrect correction, Dave. The purpose of the capacitor shunting the diode is to suppress the noise modulation of the signal. Zener diodes are very noisy and used as references are usually bypassed by tens of microfarads. At RF frequencies the .047uF does the job. Zeners do not have a hysteresis mechanism like gas tubes do and therefore won't oscillate when paralleled with capacitance.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From wwatson5 at sbcglobal.net Tue Feb 16 00:44:22 2016
From: wwatson5 at sbcglobal.net (William Watson)
Date: Tue, 16 Feb 2016 05:44:22 +0000 (UTC)
Subject: [BoatAnchors] Another chance to save a Boatanchor (Transmitter)
References: <1967458225.3842982.1455601462485.JavaMail.yahoo.ref@mail.yahoo.com>
Message-ID: <1967458225.3842982.1455601462485.JavaMail.yahoo@mail.yahoo.com>

My "last chance" to save the Globe Champion 300A worked---it has a home.
Here is another one-----
Last chance to save a Hallicrafters HT-32 from the parts box:
This is a very decent looking unit---would restore beautifully.? It is totally untested, but appears to be reasonably clean and complete. Nice knobs except one broken one.? Yours for $50 if you pick it up at my house in Edmond, OK? (if you can actually pick it up, you are a very good man!)
Joe WatsonW5WBR

From gerboid at att.net Tue Feb 16 12:25:16 2016
From: gerboid at att.net (LarryB)
Date: Tue, 16 Feb 2016 12:25:16 -0500
Subject: [BoatAnchors] Gonset Communicator rx tuning speed reducer.
Message-ID: <56C35B7C.1050709@att.net>

I am working on reviving a Communicator III 6M found at the Vintage Radio and Communications Museum of CT at their last quarterly swapmeet. Got it going but the rx tuning speed reducer is slipping. Is there

anything that can be done to fix one of these or is it a good luck finding another one type of situation? I suppose I can just epoxy the inner and outer shafts together and make it work that way if I have to, but it won't be as nice. It needs a restring job anyway, so its all apart at this time.
Thanks.............Larry

From arc5 at ix.netcom.com Tue Feb 16 09:36:01 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Tue, 16 Feb 2016 08:36:01 -0600
Subject: [BoatAnchors] Receiver Filter Adaptor and Thoughts on Projects In General
In-Reply-To: <B4342F265BB54E65AB08A14D1B6743FB@KB6NAX>
References: <5990021EEEE04FD5BF7F5F32BCBC7B67@DaddyPC>
 <C88F8D94F966440BA554AB2E5A3C70B7@DaddyPC>
 <B4342F265BB54E65AB08A14D1B6743FB@KB6NAX>
Message-ID: <E8DA9699060244E7A4CC86A686003CD0@DaddyPC>

Taking all the good points into consideration and working on a "version 1.1" of the filter adaptor for the TCS receiver. The hard part is not the circuit; it's figuring out where to put the parts on the board so it can be wired most efficiently and with least feedback/leakage between the two stages. Will pass that along once I puzzle it out, Bill. I'd be embarassed for your readers to see photos of this cobbled-up "Version 0.9 Beta" of the thing. ;-)

Also looking for alternatives. Yes, I know- I feel a little like a prostitute for even thinking of a "sand state" solution, but dang-it Mechanical filters can be expensive.   Saving money is a good cure for uneasy feelings ;-).
Come on "smart people:" By now there ought to be some single-chip active filter thingie that can do this without trying to build a mini-computer in that space.

Some thoughts on these projects in general:

I do them for my own curiosity and satisfaction. I write them up to share the idea and hope some generous person smarter than me will suggest improvements (and they almost always do, Lord bless them). I also write them in hopes someone else will build the thing and, together, we can make it work even better.

There's an important reason I try to keep any solution very simple and basic. It's an iron, unbreakable law of ham radio tinkering.

****
The Law of Pernicious Parts Count:
For every additional part in a project beyond eight,
the number of people building the project will be halved.
****

IMHO, there's no point in writing-up some mini-computer DSP thing with 100 parts and needing a Masters in digital engineering to understand, just to address the bandwidth issue in a boatanchor receiver; no one is going to build the thing or even read to the end of the piece once they see the diagram. No matter how great a solution it might be, it's a waste of precious time and effort to write-up such a contraption. If you want to build one for your own satisfaction, that's great. Go for it. Just don't expect anyone else in our community to build one. Most of us are older now. Our time, patience and resources are very limited. We aren't going to attempt a college course in digital engineering this late in the game just to improve a vintage radio. "If it ain't easy, it ain't happening."
Just one man's musings. YMMV of course.

GL OM ES 73 DE Dave AB5S

From smithab11 at comcast.net Tue Feb 16 19:01:03 2016
From: smithab11 at comcast.net (B. Smith)
Date: Tue, 16 Feb 2016 19:01:03 -0500
Subject: [BoatAnchors] Receiver Filter Adaptor and Thoughts on Projects In General
In-Reply-To: <E8DA9699060244E7A4CC86A686003CD0@DaddyPC>
References: <5990021EEEE04FD5BF7F5F32BCBC7B67@DaddyPC>
<C88F8D94F966440BA554AB2E5A3C70B7@DaddyPC>
<B4342F265BB54E65AB08A14D1B6743FB@KB6NAX>
<E8DA9699060244E7A4CC86A686003CD0@DaddyPC>
Message-ID: <56C3B83F.1070403@comcast.net>

Well we always appreciate it when you lets us see what you are working on Dave. And the best part is you design it so that even I can build it. The photos and schematics are great.
73
K4CHE

On 2/16/2016 9:36 AM, David Stinson via BoatAnchors wrote:
> Taking all the good points into consideration and working on a
> "version 1.1" of the filter adaptor for the TCS receiver. The hard
> part is not the circuit; it's figuring out where to put the parts on
> the board so it can be wired most efficiently and with least

> feedback/leakage between the two stages. Will pass that along once I
> puzzle it out, Bill. I'd be embarassed for your readers to see photos
> of this cobbled-up "Version 0.9 Beta" of the thing. ;-)
>
> Also looking for alternatives. Yes, I know- I feel a little like a
> prostitute for even thinking of a "sand state" solution, but dang-it
> Mechanical filters can be expensive.   Saving money is a good cure for
> uneasy feelings ;-).
> Come on "smart people:" By now there ought to be some single-chip
> active filter thingie that can do this without trying to build a
> mini-computer in that space.
>
> Some thoughts on these projects in general:
>
> I do them for my own curiosity and satisfaction. I write them up to
> share the idea and hope some generous person smarter than me will
> suggest improvements (and they almost always do, Lord bless them). I
> also write them in hopes someone else will build the thing and,
> together, we can make it work even better.
>
> There's an important reason I try to keep any solution very simple and
> basic. It's an iron, unbreakable law of ham radio tinkering.
>
> ****
> The Law of Pernicious Parts Count:
> For every additional part in a project beyond eight,
> the number of people building the project will be halved.
> ****
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> 100 parts and needing a Masters in digital engineering to understand,
> just to address the bandwidth issue in a boatanchor receiver; no one
> is going to build the thing or even read to the end of the piece once
> they see the diagram. No matter how great a solution it might be,
> it's a waste of precious time and effort to write-up such a
> contraption. If you want to build one for your own satisfaction,
> that's great. Go for it. Just don't expect anyone else in our
> community to build one. Most of us are older now. Our time, patience
> and resources are very limited. We aren't going to attempt a college
> course in digital engineering this late in the game just to improve a
> vintage radio.   "If it ain't easy, it ain't happening."
> Just one man's musings. YMMV of course.
>
> GL OM ES 73 DE Dave AB5S
>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com

> https://minime.theporch.com/mailman/listinfo/boatanchors
>

From gumbear at pacbell.net Tue Feb 16 22:23:44 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Tue, 16 Feb 2016 19:23:44 -0800
Subject: [BoatAnchors] File sharing for BA
Message-ID: <35AEB4F258EE4E7BB300EB66D0D84238@KB6NAX>

Brother and Sister Boatanchorites - It seems whenever I want to learn about a software application or web service I have to read through mumbo-jumbo that frustrates more and answers less. I thought I would try out DropBox so I could put photo and document links in my postings from time to time. But there are a myriad of services that do the same so I thought I?d ask for recommendations. Ringing endorsements? Any thumbs down? Goldilocks?. Thanks.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From kb8tad at gmail.com Tue Feb 16 23:23:46 2016
From: kb8tad at gmail.com (Rich Post)
Date: Tue, 16 Feb 2016 23:23:46 -0500
Subject: [BoatAnchors] File sharing for BA
In-Reply-To: <35AEB4F258EE4E7BB300EB66D0D84238@KB6NAX>
References: <35AEB4F258EE4E7BB300EB66D0D84238@KB6NAX>
Message-ID: <CAEJr0FvrZ1ypc0U-ONA4FALCmWXY2=pt3BX9gT8qVouZ=H3q8A@mail.gmail.com>

Hi Arden,

Dropbox works fine. Have been using it for a couple of years for both single use and public.
Here's a sample public file, part 8 of the Meissner "How to Build ..," manual. I divided it into 8 parts as Dropbox links from my website.
Divided it up so it wouldn't take forever for slow connections, not the fault of Dropbox..Have quite a bit on there but am only using 400 Mbytes of my free allotted 2 Gig
<https://dl.dropboxusercontent.com/u/67267474/Meissner/MeissnerPt%288%29.pdf
>

Rich KB8TAD

Ringing endorsements? Any thumbs down? Goldilocks?. Thanks.

>
> Arden Allen
> KB6NAX
>
>

From arc5 at ix.netcom.com Tue Feb 16 23:32:00 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Tue, 16 Feb 2016 22:32:00 -0600
Subject: [BoatAnchors] Receiver Filter Adaptor- Evolving Backwards
Message-ID: <BF6310AB13A14DB7BFD34EC44CCAF19F@DaddyPC>

It won't surprise some of you that I'm having trouble with the triode design for the filter adaptor. It just can't handle strong signals like during a CW contest. Guess I should have expected it since the 6026 is designed to be an oscillator. I just happened to find a bunch of them. It sounded so good on a quiet band. But tonight, things ain't so quiet and trouble came knocking.
http://home.netcom.com/~arc5/TCS/TCSFilterAdaptor1.jpg

Soooo.... I'm evolving back toward the pentode design Collins intended. One of our members recommended compatable pentode sub-minis so I'm going to get those and work back towards the original:
http://home.netcom.com/~arc5/FilterAdaptor/

Oh well... Even Babe Ruth struck out 1400 times so I'm in good company.
73 Dave AB5S

P.S. I did try shunt feeding V1 and using a .001 to couple to the input of the filter, but this introduced a lot of loss. Probably because the plate potential is so low to start with, series feed is the only way to get any signal through the filter primary.

From gumbear at pacbell.net Wed Feb 17 02:38:29 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Tue, 16 Feb 2016 23:38:29 -0800
Subject: [BoatAnchors] Receiver Filter Adaptor- Evolving Backwards

In-Reply-To: <BF6310AB13A14DB7BFD34EC44CCAF19F@DaddyPC>
References: <BF6310AB13A14DB7BFD34EC44CCAF19F@DaddyPC>
Message-ID: <CFCD2E92FADE4E538F25C4CA3A8B4290@ArdenPC>

> It won't surprise some of you that I'm having trouble with the
triode design for the filter adaptor. It just can't handle
strong signals like during a CW contest.   Guess I should have
expected it since the 6026 is designed to be an oscillator. ....

More likely your input triode is suffering from overload because of its low
plate voltage.

Arden Allen, KB6NAX

Heaven goes by favor. If it went by merit,
you would stay out and your dog would go in.
-Mark Twain

From arc5 at ix.netcom.com Wed Feb 17 07:47:36 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Wed, 17 Feb 2016 06:47:36 -0600
Subject: [BoatAnchors] Receiver Filter Adaptor- Evolving Backwards
In-Reply-To: <CFCD2E92FADE4E538F25C4CA3A8B4290@ArdenPC>
References: <BF6310AB13A14DB7BFD34EC44CCAF19F@DaddyPC>
 <CFCD2E92FADE4E538F25C4CA3A8B4290@ArdenPC>
Message-ID: <7D04C40B8E0141A491CFE51A5C8E1D42@DaddyPC>

----- Original Message -----
From: "Arden Allen" <gumbear at pacbell.net>
Subject: Re: [BoatAnchors] Receiver Filter Adaptor- Evolving
Backwards

> More likely your input triode is suffering from overload
> because of its low plate voltage.
>
> Arden Allen, KB6NAX

You know, that's a good insight.
It would be nice to be able to use the plate B+ for both V1 and
V2, but of course V2 is feeding RF to the original 12SK7's plate
circuit so if one tries to put them both on the same
buss.....hmmmmm....
Maybe a paralell resistor across the screen dropper to boost V1's

plate voltage? I could live with that change.
73 Dave S.

From gumbear at pacbell.net Wed Feb 17 15:26:00 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Wed, 17 Feb 2016 12:26:00 -0800
Subject: [BoatAnchors] Receiver Filter Adaptor- Evolving Backwards
In-Reply-To: <7D04C40B8E0141A491CFE51A5C8E1D42@DaddyPC>
References: <BF6310AB13A14DB7BFD34EC44CCAF19F@DaddyPC>
 <CFCD2E92FADE4E538F25C4CA3A8B4290@ArdenPC>
 <7D04C40B8E0141A491CFE51A5C8E1D42@DaddyPC>
Message-ID: <100317F4F3A04F03BF5280DD1CB5B522@KB6NAX>

You might try this: Decouple the output triode plate signal from the input triode plate load resistor with an LC low pass filter. Choose a RF choke inductance that has a self resonant frequency somewhat above 455 kHz and bypass the B+ to the input triode with a shorted leaded ceramic cap to a low impedance ground like a copper clad board provides. No need to hack the receiver.

Arden

> More likely your input triode is suffering from overload because of its
> low plate voltage.
>
> Arden Allen, KB6NAX

> You know, that's a good insight.

It would be nice to be able to use the plate B+ for both V1 and V2, but of course V2 is feeding RF to the original 12SK7's plate circuit so if one tries to put them both on the same buss.....hmmmmm....
Maybe a paralell resistor across the screen dropper to boost V1's

From arc5 at ix.netcom.com Wed Feb 17 22:19:27 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Wed, 17 Feb 2016 21:19:27 -0600
Subject: [BoatAnchors] Receiver Filter Adaptor- From Pillar, Back to Post
Message-ID: <88BD71B72A4A4614BD1BDA65ACAFB28B@DaddyPC>

I just keep tweeking, guys. Still sticking with the triodes for now.

http://home.netcom.com/~arc5/TCS/TCSFilterAdaptor1.jpg

I did try some suggestions, like raising the plate voltage on V1,
but that did not address the overload.   The whole thing just had
too much gain. To get rid of the feedback problem, I used
aluminum tape to shield the tubes and that worked well. Want to
see what "Texas Aggie Prototyping" looks like?
http://home.netcom.com/~arc5/TCS/FilAdapt1.jpg
Tube V1 is on the right, grounded filter case is on the left.
Fold the metal tape right and it connects to the case to provide
ground to the shielding. Used the tape on the other tube and
folded a wire in it to connect to ground.
The three twisted wires are the filter input and a ground wire,
run as far as possible away from V2.
http://home.netcom.com/~arc5/TCS/FilAdapt2.jpg
Installed:
http://home.netcom.com/~arc5/TCS/FilAdapt3.jpg

I finally decided that the problem wasn't the low B+ on V1, but
the excess gain at V2.   I changed the zener from a 100 Volt drop
to a 200 Volt drop, bringing the B+ to V2 down to about 20 Volts.
The adaptor works better now than it has since I started. Not
perfect, but better and no more overload problems.   I think it
will be even better with a little bit more B on V2, maybe 40V or
so. Will pick-up an assortment of the 1N53xx zeners and tweek it
for best performance. The capacitor across the zener doesn't
seem to make any difference to the noise floor, so I removed it
again. Use the BFO knob centered at 455KC and turn down the RF
gain (as one does in many radios without product detectors) for
LSB. Move the BFO -1 for CW (for this 2.1 KC LSB filter.
Another filter will work differently). The filter splits AM
signal sidebands. Tuning a little higher from zero-beat sounds
best to me. One trades-off AM fidelity for CW selectivity.

Things keep looking up. Still a happy boy.

GL OM DE Dave AB5S

From gumbear at pacbell.net Wed Feb 17 22:57:06 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Wed, 17 Feb 2016 19:57:06 -0800
Subject: [BoatAnchors] Receiver Filter Adaptor- From Pillar, Back to Post
In-Reply-To: <88BD71B72A4A4614BD1BDA65ACAFB28B@DaddyPC>
References: <88BD71B72A4A4614BD1BDA65ACAFB28B@DaddyPC>
Message-ID: <23AE3D1C3FE440B99632CB6D303B3BA6@KB6NAX>

> ....I just keep tweeking, guys. Still sticking with the triodes for

now. ....

Thanks to your reports, Dave, I'm getting to understand what the problems are. The original layout was at fault as you discovered. It should have been on a copper clad board, the copper acting as a shield connected to ground, the tubes on opposite sides of the shield. The tubes then clamped to the shield with thin brass sheets making the tubes solidly held in place as well a making the plate shunt capacitances stable. Understand that the mechanical filter is a bidirectional device, somewhat like a transmission line. What goes one way gets reflected back to where it came from, how much, depending on the terminating impedances. With triodes the grid-plate feedback capacitances are considerably greater than with pentodes. It's a good job for circuit simulation software to figure out what the parasitic contributions do. Tube gains can be set by the value of the cathode resistors better than by adjusting plate voltages, cathode degeneration negative feedback being far more reliably set and remaining stable. I'd run plates at 100 or so volts for good gain stability. Finally I'd want to experiment with methods to further improve gain stability by attempting to "neutralize" the triodes. Plenty of room for more components if done nicely. Last lob from this peanut gallery.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From arc5 at ix.netcom.com Thu Feb 18 04:18:07 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Thu, 18 Feb 2016 03:18:07 -0600
Subject: [BoatAnchors] Receiver Filter Adaptor- From Pillar, Back to Post
In-Reply-To: <CAETC+7PEj-64_ndxq0s_yWrh1oQG+GKgE6Kme3xJkxAWqUpN3w@mail.gmail.com>
References: <88BD71B72A4A4614BD1BDA65ACAFB28B@DaddyPC>
 <CAETC+7PEj-64_ndxq0s_yWrh1oQG+GKgE6Kme3xJkxAWqUpN3w@mail.gmail.com>
Message-ID: <6A5345A4509842B2B032D25A013BD4A7@DaddyPC>

----- Original Message -----
From: "'AKLDGUY .' neilb0627 at gmail.com
Subject: Re: Receiver Filter Adaptor- From Pillar, Back to Post

> How is V2's output taken off? Is there an IFT that isn't shown?

Here's how the adaptor looks "in situ."
Blue parts are original circuit elements.

http://home.netcom.com/~arc5/TCS/AdaptorInSitu1.jpg

While resistor values can be adjusted to an extent,
the circuits shown in blue may not be changed.

From gumbear at pacbell.net Thu Feb 18 10:55:41 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Thu, 18 Feb 2016 07:55:41 -0800
Subject: [BoatAnchors] [ARC5] Receiver Filter Adaptor- From Pillar,
     Back to Post
In-Reply-To: <8A12B99B84154DEE90E76FEDE6026C13@DaddyPC>
References:
<88BD71B72A4A4614BD1BDA65ACAFB28B@DaddyPC><CAETC+7PEj-64_ndxq0s_yWrh1oQG+GKgE6Kme3
xJkxAWqUpN3w@mail.gmail.com>
 <8A12B99B84154DEE90E76FEDE6026C13@DaddyPC>
Message-ID: <CA1DDD58031C4F74BB32D008F2C6203A@KB6NAX>

> Here's how the adaptor looks "in situ."
Blue parts are original circuit elements.
http://home.netcom.com/~arc5/TCS/AdaptorInSitu1.jpg
While resistor values can be adjusted to an extent,
the circuits shown in blue may not be changed.

Where is the screen grid bypass capacitor in the receiver (blue) portion of
the schematic?

Arden Allen
KB6NAX

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hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From arc5 at ix.netcom.com Thu Feb 18 11:26:35 2016
From: arc5 at ix.netcom.com (=?utf-8?B?YXJjjNUBpeC5uZXRjb20uY29t?=)
Date: Thu, 18 Feb 2016 16:26:35 GMT
Subject: [BoatAnchors] [ARC5] Receiver Filter Adaptor- From Pillar,
     Back to Post

Message-ID: <000f4242.40fd17942944de30@ix.netcom.com>

Sent from my ain't-so-smartphone.

------ Original message------From: Arden AllenSubject:Re: [ARC5] Receiver Filter Adaptor- From Pillar, Back to Post

>Where is the screen grid bypass capacitor? I'm the original circuit, the screen bypass is the .1uFd on the bottom left, next to the 100k pull-down resistor. V1 is powered from the screen buss.

From gumbear at pacbell.net Thu Feb 18 14:52:42 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Thu, 18 Feb 2016 11:52:42 -0800
Subject: [BoatAnchors] [ARC5] Receiver Filter Adaptor- From Pillar, Back to Post
In-Reply-To: <000f4242.40fd17942944de30@ix.netcom.com>
References: <000f4242.40fd17942944de30@ix.netcom.com>
Message-ID: <8E6C745306F84D8FAA3EB13228069D98@KB6NAX>

> .....[In] the original circuit, the screen bypass is the .1uFd on the bottom left,
> next to the 100k pull-down resistor. V1 is powered from the screen buss.

I see the 220V B+ feed point which is bypassed by 0.1uF. Is that at pin 6 of P201 ? The schematic still makes no sense. There is a 47K resistor, presumably the receiver?s screen dropping resistor, but no bypass for the screen is shown. Did Dave omit it from the from the schematic by accident? There should be a bypass capacitor at the filter primary B+ feedpoint. The schematic makes it appear there is a 47K plate load resistor which is not needed or wanted. Let?s clear up the confusion, IYDM.

Arden Allen
KB6NAX

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hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.

?Immanuel Kant

```
From arc5 at ix.netcom.com  Thu Feb 18 15:16:12 2016
From: arc5 at ix.netcom.com (=?utf-8?B?YXJjNUBpeC5uZXRjb20uY29t?=)
Date: Thu, 18 Feb 2016 20:16:12 GMT
Subject: [BoatAnchors] [ARC5] Receiver Filter Adaptor- From Pillar,
     Back to Post
Message-ID: <000f4242.269b91eb780b58ca@ix.netcom.com>
```

This isn't a command set receiver. It's a navy TCS receiver. Still Tunes fast, but not as fast as an ARC-5 lol

Sent from my ain't-so-smartphone.

```
From gerboid at att.net  Thu Feb 18 21:02:56 2016
From: gerboid at att.net (LarryB)
Date: Thu, 18 Feb 2016 21:02:56 -0500
Subject: [BoatAnchors] Gonset Communicator rx tuning speed reducer.
In-Reply-To: <FE02034F-922B-4321-B2D8-C3766DE3C247@gmail.com>
References: <56C35B7C.1050709@att.net>
 <FE02034F-922B-4321-B2D8-C3766DE3C247@gmail.com>
Message-ID: <56C677D0.8030406@att.net>
```

Thanks Roy, I will try to clean up everything and restring it this weekend.
.........Larry

```
From gumbear at pacbell.net  Thu Feb 18 21:45:29 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Thu, 18 Feb 2016 18:45:29 -0800
Subject: [BoatAnchors] [ARC5] Receiver Filter Adaptor- From Pillar,
     Back to Post
In-Reply-To: <56C679ED.9080604@gmail.com>
References: <000f4242.40fd17942944de30@ix.netcom.com>
 <8E6C745306F84D8FAA3EB13228069D98@KB6NAX> <56C679ED.9080604@gmail.com>
Message-ID: <3B309B5337A24BE695D6E9FBC0FD7FD4@KB6NAX>
```

Hi John,

We must be talking past each other. I downloaded the TCS manual and to my surprise the 1st IF 12SK7 has no screen bypass capacitor. How odd. It must have been left out so K-103C?s gain switching is not slowed down. The gain loss must not be a problem. How does that affect the function of the mechanical filter? That?s another question to amuse the muses.

Arden
> Look more left and down by the blue box } that is the screen pin.
> Hutch
On 2/18/2016 1:52 PM, Arden Allen wrote:

> .....[In] the original circuit, the screen bypass is the .1uFd on the bottom left,
next to the 100k pull-down resistor. V1 is powered from the screen buss.

I see the 220V B+ feed point which is bypassed by 0.1uF. Is that at pin 6 of P201 ? The schematic still makes no sense. There is a 47K resistor, presumably the receiver?s screen dropping resistor, but no bypass for the screen is shown. Did Dave omit it from the from the schematic by accident? There should be a bypass capacitor at the filter primary B+ feedpoint. The schematic makes it appear there is a 47K plate load resistor which is not needed or wanted. Let?s clear up the confusion, IYDM.

Arden Allen
KB6NAX

....

From arc5 at ix.netcom.com Fri Feb 19 05:49:59 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Fri, 19 Feb 2016 04:49:59 -0600
Subject: [BoatAnchors] Receiver Filter Adaptor- Diagram Correction
In-Reply-To: <3B309B5337A24BE695D6E9FBC0FD7FD4@KB6NAX>
References: <000f4242.40fd17942944de30@ix.netcom.com>
<8E6C745306F84D8FAA3EB13228069D98@KB6NAX> <56C679ED.9080604@gmail.com>
<3B309B5337A24BE695D6E9FBC0FD7FD4@KB6NAX>
Message-ID: <55DD099E90B84EBCA03E306740E5B6A8@DaddyPC>

Arden- All:
Sorry to take a while to reply. Work presses.

I made an error in the "in situ" diagram (Me? Make an ERROR? Say it ain't so!). Here is the corrected V1 plate circuit showing the in-rig screen bypass, C226B (a plate bypass when using the adaptor), in the proper place (don't forget to hit "reload" to clear the old diagram out of your browser cache):
http://home.netcom.com/~arc5/TCS/AdaptorInSitu1.jpg

Here are the original TCS IF stages for reference:

http://home.netcom.com/~arc5/TCS/TCSIF.jpg

R215 is the screen resistor which becomes a plate dropper when using the adaptor. It's not what you would want in V1's plate circuit, but "the rules of the road" say it is fixed and immuteable, so must be accepted. Any substantial change in R215 and one could no longer replace the adaptor with the original 12SK7. Fortunately, the V1 stage seems to work well as-is and I like that there are only 4 mils of current in that filter primary winding. I may do some more fiddling to see if I can't get the DC off the filter, shunt-feeding V1, but I risk running afoul of the "Law of Pernicious Parts Count" and it's "Sam Rayburn Corollary."

There do seem to be some issues with V2 at only 20 plate Volts. I'm going to try the suggestion of one of our kind and "smart people," bringing the plate back up to 120 volts and setting stage gain with the cathode resistor. A question for our "smart people" (assuming anyone is still reading at this point): Should I bypass the new cathode resistor, or is there some benefit from leaving some degeneration in there?

Happy weekend, everyone.
GL OM ES 73 DE Dave AB5S

P.S. I was asked why I was posting this to the "ARC-5" list since it isn't an "ARC-5" receiver. I do because some people there believe what we're discussing has applications in just about any old receiver and they asked me to do so. "DEL" button works great, guys ;-)

From gumbear at pacbell.net Fri Feb 19 10:08:23 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Fri, 19 Feb 2016 07:08:23 -0800
Subject: [BoatAnchors] Receiver Filter Adaptor- Diagram Correction
In-Reply-To: <55DD099E90B84EBCA03E306740E5B6A8@DaddyPC>
References: <000f4242.40fd17942944de30@ix.netcom.com>
 <8E6C745306F84D8FAA3EB13228069D98@KB6NAX> <56C679ED.9080604@gmail.com>
 <3B309B5337A24BE695D6E9FBC0FD7FD4@KB6NAX>
 <55DD099E90B84EBCA03E306740E5B6A8@DaddyPC>
Message-ID: <E55CF0DDC4CE4E5AAECCF4F8E7B62345@KB6NAX>

> R215 is the screen resistor which becomes a plate dropper when using the adaptor. It's not what you would want in V1's plate circuit, but "the rules of the road" say it is fixed and immuteable, so must be accepted. Any substantial change in R215

and one could no longer replace the adaptor with the original 12SK7. Fortunately, the V1 stage seems to work well as-is and I like that there are only 4 mils of current in that filter primary winding. I may do some more fiddling to see if I can't get the DC off the filter, shunt-feeding V1, but I risk running afoul of the "Law of Pernicious Parts Count" and it's "Sam Rayburn Corollary."

> There do seem to be some issues with V2 at only 20 plate Volts.
I'm going to try the suggestion of one of our kind and "smart people," bringing the plate back up to 120 volts and setting stage gain with the cathode resistor. A question for our "smart people" (assuming anyone is still reading at this point): Should I bypass the new cathode resistor, or is there some benefit from leaving some degeneration in there?

The socket pin numbers on your schematic, Dave, would also be helpful. Collins seems to have been OK with plate current through the filter primary but they had a good source for replacements - they were making them. Chance of a plate to ground short would be a problem if it weren't for the current limiting of the 47K resistor. From my perspective I would want the gain of the adapter to be the same as the TCS second IF amp 12SK7, V205. The first criteria is gain without oscillation, the next is gain without tendency to oscillate, the next is gain that has low sensitivity to variations in parasitic capacitances, the tube shielding being helpful. The "finger rule" is, does the circuit pretty much ignore being probed or does it get hinky? In other words can you place a 15pF x10 oscilloscope probe on the grid or plate to see normal operation albeit the added capacitance will have some detuning effect? Finally, sweeping the circuit to optimize the resonating capacitor values would be desirable, FMPOV.

Arden

From arc5 at ix.netcom.com Fri Feb 19 10:18:59 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Fri, 19 Feb 2016 09:18:59 -0600
Subject: [BoatAnchors] Receiver Filter Adaptor- Diagram Correction
In-Reply-To: <E55CF0DDC4CE4E5AAECCF4F8E7B62345@KB6NAX>
References: <000f4242.40fd17942944de30@ix.netcom.com>
 <8E6C745306F84D8FAA3EB13228069D98@KB6NAX> <56C679ED.9080604@gmail.com>
 <3B309B5337A24BE695D6E9FBC0FD7FD4@KB6NAX>
 <55DD099E90B84EBCA03E306740E5B6A8@DaddyPC>
 <E55CF0DDC4CE4E5AAECCF4F8E7B62345@KB6NAX>
Message-ID: <86ED1787D1124BE9A25E3F38BFE7F046@DaddyPC>

I'm going to try returning V2 Vplt to 120 V and adjust gain by

tweeking V2's cathode resistor. What do you think of bypassing the new cathode resistor, or is there some stability advantage in the degeneration if I leave it out?
I removed the cathode bypass I had added to the audio stage because, while it improved fidelity and increased gain, it made the audio amp unstable at high volume levels. Collins was right on that one.

From gumbear at pacbell.net Fri Feb 19 16:21:14 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Fri, 19 Feb 2016 13:21:14 -0800
Subject: [BoatAnchors] Receiver Filter Adaptor- Diagram Correction
In-Reply-To: <86ED1787D1124BE9A25E3F38BFE7F046@DaddyPC>
References: <000f4242.40fd17942944de30@ix.netcom.com>
 <8E6C745306F84D8FAA3EB13228069D98@KB6NAX> <56C679ED.9080604@gmail.com>
 <3B309B5337A24BE695D6E9FBC0FD7FD4@KB6NAX>
 <55DD099E90B84EBCA03E306740E5B6A8@DaddyPC>
 <E55CF0DDC4CE4E5AAECCF4F8E7B62345@KB6NAX>
 <86ED1787D1124BE9A25E3F38BFE7F046@DaddyPC>
Message-ID: <05634BC7158D4818AFFAD1F623F7FE0D@KB6NAX>

> I'm going to try returning V2 Vplt to 120 V and adjust gain by tweeking V2's cathode resistor. What do you think of bypassing the new cathode resistor, or is there some stability advantage in the degeneration if I leave it out?
I removed the cathode bypass I had added to the audio stage because, while it improved fidelity and increased gain, it made the audio amp unstable at high volume levels. Collins was right on that one.

Bypassing the cathode resistor would substantially increase gain. Cathode degeneration aids stability (freedom from tendency to oscillate). The cathode resistor sets the tube operating point which is important depending on how large a voltage the amplifier has to handle undistorted. For signal levels of a few millivolts you have more latitude to set gain by varying the cathode resistance. Gain can also be adjusted by a series resistor-capacitor paralleling the cathode resistor.

The question is, can you measure the 12SK7 stage gain with the 12SK7 in place and then with the filter adapter in place? This need not be too complicated once you decide you want the adapter to be "transparent" to the operation of the TCS receiver, which means the adapter should only be changing the IF bandwidth and not the IF gain unless you want it to.

Arden

From wwatson5 at sbcglobal.net Sat Feb 20 01:18:41 2016
From: wwatson5 at sbcglobal.net (William Watson)
Date: Sat, 20 Feb 2016 06:18:41 +0000 (UTC)
Subject: [BoatAnchors] Final Call for Hallicrafters HT-32
References: <1944654451.168566.1455949121215.JavaMail.yahoo.ref@mail.yahoo.com>
Message-ID: <1944654451.168566.1455949121215.JavaMail.yahoo@mail.yahoo.com>

You can save this nice looking HT-32 transmitter from being dismantled by paying a token price of $25 and picking it up in Edmond, OK. Otherwise, it becomes a box of parts.
Thanks.
Joe WatsonW5WBR

From arc5 at ix.netcom.com Sat Feb 20 01:35:44 2016
From: arc5 at ix.netcom.com (=?utf-8?B?YXJjNUBpeC5uZXRjb20uY29t?=)
Date: Sat, 20 Feb 2016 06:35:44 GMT
Subject: [BoatAnchors] Final Call for Hallicrafters HT-32
Message-ID: <000f4242.409d1e7b5e114593@ix.netcom.com>

Wish I could. ?Got no way up there.
Sent from my ain't-so-smartphone.

------ Original message------From: William Watson via BoatAnchors Date: Sat, Feb 20, 2016 12:19 AMTo: Boatanchors List;Subject:[BoatAnchors] Final Call for Hallicrafters HT-32
You can save this nice looking HT-32 transmitter from being dismantled by paying a token price of $25 and picking it up in Edmond, OK. Otherwise, it becomes a box of parts.Thanks.Joe WatsonW5WBR____BoatAnchors mailing listBoatAnchors at theporch.comhttps://minime.theporch.com/mailman/listinfo/boatanchors

From arc5 at ix.netcom.com Sun Feb 21 17:51:33 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Sun, 21 Feb 2016 16:51:33 -0600
Subject: [BoatAnchors] Receiver Filter Adaptor- Knowing When to Stop

Message-ID: <CBDB1BCBE0DF4DF894E661D1A65705A3@DaddyPC>

Re: The project to build a Mechanical Filter adaptor for the WWII TCS Receiver.

Some time after I crossed the border into my 50s, I learned a couple of important axioms. First; that once their are more days behind one than in front, those remaining days speed by ever faster. Second; that "the perfect" is the bitter enemy of "the good." Now that I am about to rocket away from my 50s and go ripping at warp-speed through 60s Space, I find them doubly convincing. I have nothing so precious as TIME- limited, fleeting time.

After many trials and experiments (throttling the cathode resistor didn't work) and a great deal of help and suggestions from our great community, The final single-bandwidth version of the filter adaptor is at:
http://home.netcom.com/~arc5/TCS/TCSFilterAdaptor1.jpg

It is not perfect. There are a hundred "improvements" possible. But it does exactly what I wanted: Make CW QSOs pleasant and cut the SSB "Slop Bucket" QRM when talking on the local AM nets. I don't expect to make a TCS receiver into a Flex or K3, nor would I even attempt it. But I'm making lots of contacts for Novice Rig Roundup and when the "Slop Bucketeers" seem unable in *400 kHz* to find anywhere to spew other than in the AM window, tuning from one AM sideband to the other helps.
Spending any more time on this when the goal is met robs that precious TIME from the next project. I have another TCS (a Collins -12) that needs bench time and it will get the "switchable" CW/SSB/AM filter board, which is just this circuit with some relays and a wire to an unused terminal on the power connector.

Thank you to everyone who contributed time and ideas.
You really are one awesome community.
73 DE Dave AB5S

Overview of refurbing a TCS receiver:
1. Refurbish all ground points.
2. Lubricate mechanicals, DeOxIt toggles and pots.
3. Visually and physically inspect ceramic band and
   Xtal switches, DeOxIt contacts.
4. Replace bad parts.
5. Feed the B+ buss with no fils and look for shorts.
6. Say a prayer and power up, fix whatever smokes.
7. Set the BFO accurately to 455 KC.

8. Align correctly according to the manual.
9. Install clipper diodes across the headphone jack
   and across any external speaker matching xfrmr.
10. Enjoy.

From gumbear at pacbell.net Sun Feb 21 22:00:49 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Sun, 21 Feb 2016 19:00:49 -0800
Subject: [BoatAnchors] Receiver Filter Adaptor- Knowing When to Stop
In-Reply-To: <CBDB1BCBE0DF4DF894E661D1A65705A3@DaddyPC>
References: <CBDB1BCBE0DF4DF894E661D1A65705A3@DaddyPC>
Message-ID: <3CEB40EEE9A342DEB8C54F5BA0063AD8@ArdenPC>

> .... "the perfect" is the bitter enemy of "the
> good." ....

A corollary is, "one man's junk is another man's treasure." If we all had
the same goals nothing would get invented, improvised, ignored or scrapped.
Your willingness to tap into the diversity of ideas on this List bespeaks of
your wise and agile approach to dealing with BA problems vis-?-vis the
ticking clock. In other *&%$#@! words, NICE JOB!

Arden Allen, KB6NAX

Heaven goes by favor. If it went by merit,
you would stay out and your dog would go in.
-Mark Twain

From gumbear at pacbell.net Mon Feb 22 18:54:03 2016
From: gumbear at pacbell.net (Arden Allen)
Date: Mon, 22 Feb 2016 15:54:03 -0800
Subject: [BoatAnchors] [ARC5] More Condenser/Capacitor Trivia
In-Reply-To: <6929EA3180F54B9C82E5F21219777D0D@DaddyPC>
References: <6CF5C106-D446-4545-
AFD8-925E296ECB80@burlingtontelecom.net><56CB265E.4070502@charter.net><56CB46B9.2050604@ix.netcom.com>
<56CB78BB.4000902@gmail.com> <6929EA3180F54B9C82E5F21219777D0D@DaddyPC>
Message-ID: <DCF5E0C42E6049E58114ED049CFA685F@KB6NAX>

> You say condenser, and I say capacitor.....

> There's only one way this can end...

> https://youtu.be/zZ3fjQa5Hls?t=45

....Brought you by Campbell's Condensed Capacitors. Mmmm, mmmm, goood!

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From w9ac at arrl.net Thu Feb 25 21:19:43 2016
From: w9ac at arrl.net (Paul Christensen)
Date: Thu, 25 Feb 2016 21:19:43 -0500
Subject: [BoatAnchors] Millen 90281 HV Power Supply Wanted
Message-ID: <000301d1703c$28392f40$78ab8dc0$@arrl.net>

Looking for a Millen 90281 HV supply to power my Millen 90801 HF exciter.
If you have one available, please reply off-list. Thanks!

Paul, W9AC

From arc5 at ix.netcom.com Mon Feb 29 08:11:13 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Mon, 29 Feb 2016 07:11:13 -0600
Subject: [BoatAnchors] WTB: TCS-12 Dynamotor Supply
Message-ID: <DD1CE5348D494A36B52AF98C786507AF@DaddyPC>

WTB: Dynamotor supply for the TCS-12 rig.
This is the single-dynamotor power supply marked
for TCS-12. Must be in decent condition (dusty OK,
rusted-up is not), completely unmodified and have
its nomenclature plate.

TNX ES 73 DE Dave AB5S

From w7qho at aol.com Mon Feb 29 19:36:42 2016

From: w7qho at aol.com (Dennis DuValll)
Date: Mon, 29 Feb 2016 16:36:42 -0800
Subject: [BoatAnchors] Harris RF-103 Linear Amplifier - Schematic/manual needed
In-Reply-To: <nahsol+il6qdd@YahooGroups.com>
References: <nahsol+il6qdd@YahooGroups.com>
Message-ID: <62DE7C16-3894-44DD-B744-0030470C0270@aol.com>

All

I just came into possession of a Harris RF-103 commercial linear amplifier. This is a 1960?s (?) unit, 2 - 30 mHz, 3-1000Z PA, 1 KW out continuous duty. Looks to be complete but with some past non-original internal ?adjustments? in evidence. Came with a 3-1000Z PA installed which subsequently checked out ?good" in my HB 3-1000Z amp

Anyway, I need a manual and/or at least a schematic for this beast. Compact unit for it?s power output, in reasonably good cosmetic condition and definitely looks restorable.

Pix on request.

Dennis D. w7qho
Glendale, CA

****

From bluegrassdakine at hotmail.com Mon Feb 29 22:09:43 2016
From: bluegrassdakine at hotmail.com (Raymond Cote)
Date: Mon, 29 Feb 2016 21:09:43 -0600
Subject: [BoatAnchors] Harris RF-103 Linear Amplifier - Schematic/manual needed
In-Reply-To: <62DE7C16-3894-44DD-B744-0030470C0270@aol.com>
References: <nahsol+il6qdd@YahooGroups.com>
<62DE7C16-3894-44DD-B744-0030470C0270@aol.com>
Message-ID: <BAY405-EAS136E5B63F87989CEA45784AA9BB0@phx.gbl>

Hi Dennis. I also have that linear with all documents but it is stored in a 40 ft container. It is not available any time soon sorry to say. I hope someone will come through for you in the mean time. I also have three Harris transceivers that go with it as I used for marine work. That are also put away. When I get the data out I will post it here and make the data available.

Ray C?t?
KD9CCZ

Women and cats will do as they please, and men and dogs should just relax and get use to the idea.

-Robert Heinlein

> On Feb 29, 2016, at 18:37, Dennis DuValll via BoatAnchors <boatanchors at
theporch.com> wrote:
>
> All
>
> I just came into possession of a Harris RF-103 commercial linear amplifier.
This is a 1960?s (?) unit, 2 - 30 mHz, 3-1000Z PA, 1 KW out continuous duty.
> Looks to be complete but with some past non-original internal ?adjustments? in
evidence. Came with a 3-1000Z PA installed which subsequently checked out
> ?good" in my HB 3-1000Z amp
>
> Anyway, I need a manual and/or at least a schematic for this beast. Compact
unit for it?s power output, in reasonably good cosmetic condition and definitely
> looks restorable.
>
> Pix on request.
>
> Dennis D. w7qho
> Glendale, CA
>
> *****************
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors